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JM Dot - File

North Lily Mining Company

March 5, 1997

State of Utah
Department of Environmental Quality
Division of Water Quality
288 north 1460 West
Salt Lake City, Utah 84114-4870

RE: Addendum to Closure Plan submitted September 26, 1996

Attention: Mr. Dennis Fredrick
Ground Water Protection Section

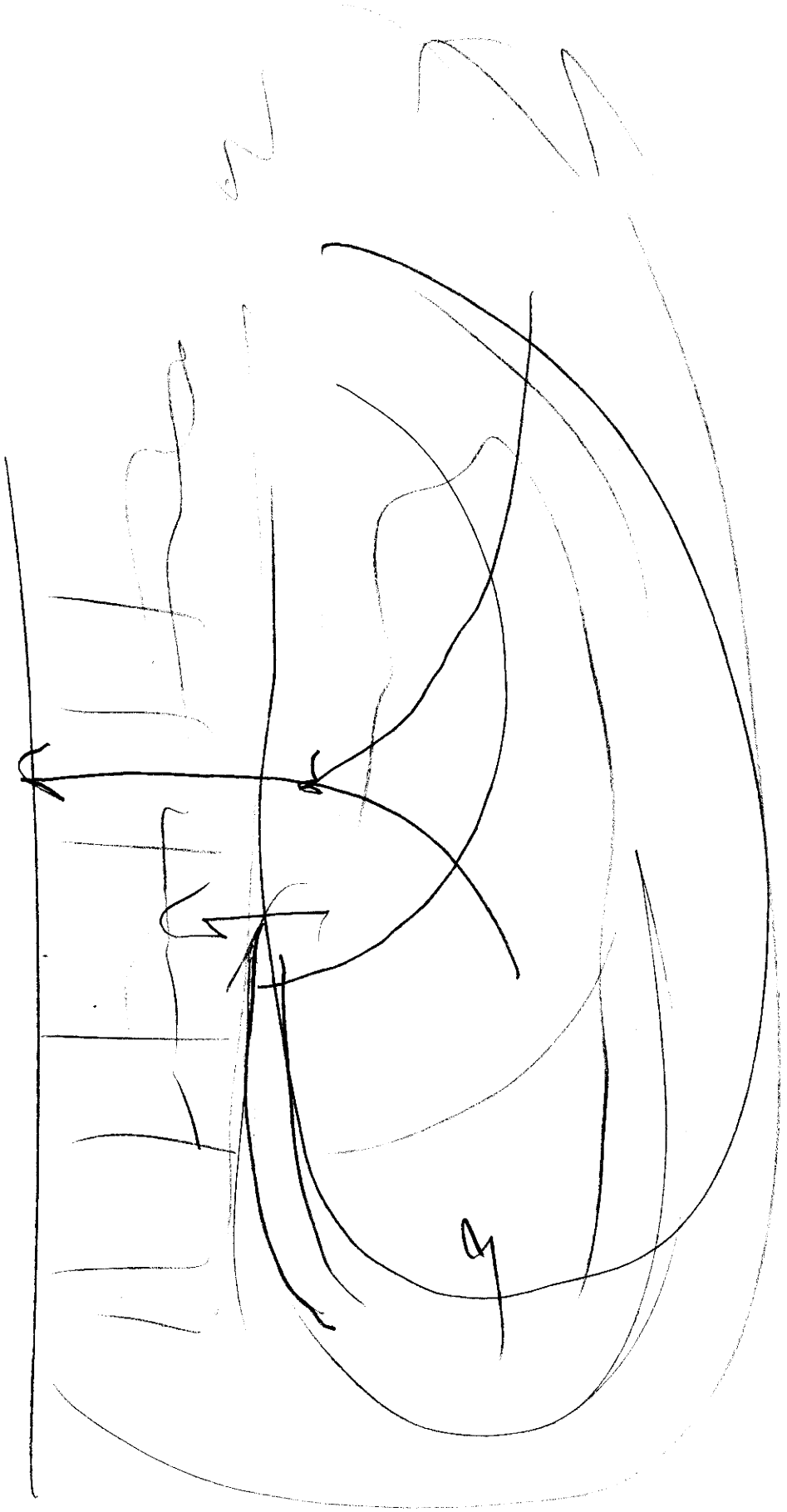
Attached is Addendum I to Section 7.0 Fluid Deposal Plan of North Lily's Closure Plan submitted September 26, 1996. Addendum I is a proposal requesting that excess fluids from the heap flushing process be deposed of by land application and is submitted for your consideration.

We, (Messrs. Webb, Gast and myself) will be available to discuss with you this and other phases of North Lily's Closure Plan at your convenience.

Sincerely,

Paul C. Spor
General Manager

cc Larry J. Mize, Manager, Ground Water Protection Section
Tom Munson, Division of Oil, Gas, and Mining
Roger Foisy, District Engineer, Central Utah District Health Dept.
David Rupp, Division of Water Quality
Tom Gast, Environmental Management Service Company
W. G. Webb, Executive Vice President, North Lily Mining Company
John Brown, Director, International Mahogany, Inc. (50% project participant)



ADDENDUM I

7.0 FLUID DISPOSAL PLAN

It is planned that excess fluids from the heap flushing process will be deposed of by land application. This system of fluid disposal is well proven. The most significant benefit of direct land application relates to soil attenuation of metals and not the evaporation of solution. The land application system would be operated in a manner to exclude overland flow and maximize infiltration and percolation of solution into the soils.

In addition to the possibility of applying excess rinse solution to the seeded heap for irrigation, the operator has identified two potential areas for application in close proximity to the Silver City heap. Both areas are private and controlled by North Lily. (These areas are identified on Figure 1.) Soil samples were collected from both areas (See Figure 1 for sample locations) and submitted to the Colorado State University Soils Lab for analysis. (Results of the soil analysis are show as Figure 2.) All soils showed substantial capacity to absorb metals without exceeding concentrations considered harmful to plant growth.

Rinse solution concentration has been monitored for the past three and a half years. Spillway samples and been taken and submitted to ChemTech a Utah Certified Lab for analysis. The following table outlines the progress to date on some of the metals and cyanide (all analysis are reported in mg/l):

PARAMETER	*GROUND WATER QUALITY STANDARD	DETECTED IN								
		JUL 93	MAR 95	JUN 95	SEP 95	DEC 95	MAR 96	JUN 96	SEP 96	DEC 96
Fluoride as F	2.4	1.60	2.49	4.94	5.2	5.7	3.5	5.9	1.6	5.4
Arsenic as As	0.05	0.916	0.604	0.59	0.814	0.500	1.3	0.63	0.44	0.31
Barium as Ba	2.0	<.1	0.016	0.018	0.02	<0.20	<0.05	0.02	0.02	<0.2
Cadmium as Cd	0.005	<.1	<.001	<.001	<0.01	<0.05	<0.025	<0.02	0.008	<0.1
Chromium as Cr	0.1	<1	<.01	<.007	<0.01	<0.05	<0.025	0.041	0.040	<0.1
Copper as Cu	1.3	1110	340	283	255	188	162	161	102	80.2
Lead as Pb	0.015	<.2	0.088	0.066	0.100	0.100	<0.04	0.14	0.11	1.3
*Mercury as Hg	0.002	0.141	0.388	0.0020	0.232	0.329	0.39	0.40	0.27	0.31
Selenium as Se	0.05	0.529	0.140	0.24	0.17	0.024	0.03	<0.02	0.02	0.05
Silver as Ag	0.05	4.41	3.61	1.8	4.24	3.43	0.56	1.32	7.74	<0.1
Zinc As Zn	5.0	0.381	0.093	0.500	0.19	0.20	0.08	0.30	0.35	<0.2
Cyanide as CN-T	0.75	1480	344	256	300	*NOTE	163	149	91	62
Cyanide as CN-Wad	0.20	1264	77.6	239	291	169	153	156	93	64
pH	6.5 to 8.5	10.0	9.41	8.82	9.31	8.95	9.39	9.20	8.6	8.7

* Administrative Rules For Ground Water Quality Protection - Effective Date of Last Revision - March 20, 1995

* Digested analyzed by AWAL

As the above table indicates, the effluent coming from off the heap leach pads showed significant reductions in metals and total and wad cyanide levels for the past three years. North Lily is extremely pleased with the decrease in wad and total cyanide levels.

The amount of excess fluid that is planned for deposal by land application is estimated at 1,250,000

to 1,500,000 gallons or between 4 and 5 acre feet. These fluids will be deposed of on two sites; The first site is south of the heap leach pad and covers an area of approximately 180,000 sq ft or 4.13 acres, and the second site is west of the heap leach pad and across the highway and covers an area of approximately 360,000 sq ft or 8.26 acres. For a combined area of approximately 540,000 sq ft or 12.39 acres. If 250,000 gallons of excess fluid were evenly deposed of over the proposed sites less than one half gallon of fluid would be deposed of per square foot of ground.

Based on the following deposal rate, 100 gallons per minute for 8 hours per day a total of 48,000 gallons would be deposed per day. By alternating daily between sites 1 and 2 the excess fluids would be deposed of in approximately 31 days. (Note: Because site 2 is twice the size of site 1, it will be divided into two parcels thus each site of approximately 4 .1 acres would receive excess fluid once every third day allowing for absorption and/or evaporation.) Deposal of excess fluids will not commence until the ground is free of snow and then only on days when temperatures are above 50 degrees Fahrenheit. On all rainy days, deposal of excess fluids will be suspended.

Based on the maximum amount of excess fluids estimated in the system the following amounts of metal, wad and total cyanide have been calculated to represent the total elements and compounds to be deposed of by land application (December 1996 rinse solution concentration levels were used). The following table outlines the projected results (Most of the soil analysis are reported in ppm calcium, magnesium, and sodium are reported in meq/l, all of the rinse solution values are reported as (Total amounts) in mg/l and the final column represents mg/kg in the 12.39 acres designated in site 1 and 2.):

PARAMETER	CURRENT SOIL LEVEL METALS/COMPOUNDS	DETECTED IN RINSE SOLUTION DEC 96	TOTAL mg/kg IN LAND APPLICATION AREA
Fluoride as F	N/R	5.4	1.12
Arsenic as As	0.69	0.31	0.06
Barium as Ba	N/R	<0.2	<0.04
Cadmium as Cd	0.09	<0.1	<0.02
Chromium as Cr	N/R	<0.1	<0.02
Copper as Cu	4.4	80.2	16.7
Lead as Pb	12.0	1.3	0.3
*Mercury as Hg	N/R	0.31	0.06
Selenium as Se	N/R	0.05	0.01
Silver as Ag	N/R	<0.1	<0.02
Zinc As Zn	1.59	<0.2	<0.04
Cyanide as CN-T	N/R	62	12.94
Cyanide as CN-Wad	N/R	64	13.36
pH	8.0	8.7	8.3
Phosphorus as P	4.4	0.13	0.03
Potassium as K	308	363	76
Iron as Fe	3.25	0.6	0.13
Manganese as Mn	1.9	0.188	0.04
Calcium as Ca	2.4	524	109.4
Magnesium as Mg	0.6	12	2.5
Sodium as Na	0.4	6710	1400

Although several of these elements will show higher than back ground levels of concentrations in the land application areas none of the elements are harmful to plant life. Within several years most of the soil in the land application area will return to its natural state.

Tom Gast/ Environmental Management Services Company
3301 Research Boulevard, Suite 103
Fort Collins, CO 80526

Colorado State University
Soil, Water and Plant Testing Laboratory
Natural & Environmental Sciences Bldg - A319
Fort Collins, CO 80523

(970) 491-5061 FAX: 491-2930

DATE RECEIVED: 07-12-96
DATE REPORTED: 08-02-96

BILLING:

RESEARCH SOIL ANALYSIS

Lab #	Sample ID #	paste pH	paste EC mmhos/cm	Lime estimate	OM %	AB-DTPA NO_3-N ppm	AB-DTPA P ppm	AB-DTPA K ppm	AB-DTPA Zn ppm	AB-DTPA Fe ppm	AB-DTPA Mn ppm	AB-DTPA Cu ppm	Texture estimate
R157	W1	8.3	1.1	Low	1.5	14	14.6	254	0.61	2.6	3.1	3.5	Clay Loam
158	W2	7.8	0.4	Medium	1.5	2	1.8	270	1.40	4.7	1.7	5.2	Clay Loam
159	W3	8.1	0.4	Medium	1.5	2	1.8	283	0.87	3.0	1.5	4.1	Clay Loam
160	W3	7.8	0.3	Low	1.5	2	2.6	387	0.83	3.0	1.6	3.2	Clay Loam
161	S1	7.9	0.3	High	1.5	1	2.1	299	1.80	4.3	2.2	3.4	Clay Loam
162	S2	8.1	0.3	High	1.3	1	2.8	316	1.60	2.6	1.7	4.8	Clay Loam
163	S3	8.1	0.3	High	1.4	2	4.9	345	4.40	2.9	2.2	6.1	Clay Loam
164	S4	8.1	0.3	High	1.6	1	4.3	313	1.20	2.9	1.3	5.2	Clay Loam

Lab #	Sample ID #	Ca meq/l	Mg meq/l	Na meq/l	K meq/l	SAR	AB-DTPA Cd ppm	AB-DTPA Pb ppm	AB-DTPA As ppm
R157	W1	2.6	1.0	0.5	0.1	0.4	0.06	3.1	1.32
158	W2	2.7	0.8	0.6	0.2	0.5	0.11	10.3	0.50
159	W3	2.2	1.0	0.3	0.1	0.3	0.08	6.1	0.58
160	W3	2.3	0.8	0.4	0.2	0.3	0.07	3.4	0.50
161	S1	2.4	0.3	0.3	0.1	0.2	0.09	22.7	0.95
162	S2	2.2	0.3	0.4	0.1	0.4	0.09	16.0	0.83
163	S3	2.3	0.3	0.4	0.1	0.4	0.14	24.5	0.29
164	S4	2.4	0.3	0.4	0.1	0.4	0.07	9.6	0.56

Figure 2

Permit No.: UGW230001

STATE OF UTAH
DIVISION OF WATER QUALITY
DEPARTMENT OF ENVIRONMENTAL QUALITY
P.O. BOX - 16690
SALT LAKE CITY, UTAH 84116-0690

Ground Water Quality Discharge Permit

In compliance with the provisions of the Utah Water Pollution Control Act, Title 19, Chapter 5, Utah Code Annotated 1953, as amended,

North Lily Mining Company
Silver City Heap Leach
1800 Glenarm Place, Suite 210
Denver, Colorado 80202

is granted a Ground Water Quality Discharge Permit for the Silver City Heap Leach located at latitude 39o 50' 00" North, longitude 112o 8' 30" West in accordance with conditions set forth herein.

This Ground Water Quality Discharge Permit supersedes all other Ground Water Discharge permits for this facility issued previously.

This permit shall become effective on July 30, 1997.

This permit and the authorization to operate shall expire at midnight, July 30, 2002.

Signed this _____th day of July, 1997.

_____
Executive Secretary
Water Quality Board

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I. SPECIFIC CONDITIONS

A. Ground Water Classification

Based on ground water data collected from a downgradient water supply well, ground water in the area of the facility is classified as Class IA Drinking Water Quality Ground Water.

B. Heap Leach Closure Discharge Minimization Technology

1. Heap Leach Pad Cover - The cover will consist of graded and compacted subore that will be ripped to a nominal depth of two feet to provide a subsoil for plant rooting. One foot of top soil will be placed on top of the ripped subsurface and seeded in accordance with Division of Oil Gas and Mining (DOGM) reclamation requirements. At minimum vegetation must be established to a density consistent with DOGM requirements.

2. Biopass System - Pore water and infiltration from precipitation events will drain from the heap leach by gravity to a Biopass System constructed in the former pregnant solution pond. The fluids will be undergo anaerobic treatment within the Biopass System and the effluent will gravity flow to the evaporation pond.

3. Evaporation Pond - Effluent from the bioreactor system will gravity drain to the existing barren solution pond. The bottom portion of the pond will be filled with soil and top soiled and planted with water tolerant species. The effluent flow from the bioreactor will either evaporate or transpire via the plants.

4. Sampling Ports - Sampling Ports will be constructed and maintained that allow for sampling of heap leach pad effluent and for sampling of biopass system effluent. Flow measurement devices will be installed and maintained to measure flow between the heap leach and the biopass system and between the biopass system and the evaporation pond. The flow measurement devices must measure instantaneous and cumulative flow.

5. Performance Standards- 1) The biopass system will be maintained in operable condition such that effective leachate flow through and treatment is provided at all times; 2) The pond level in the evaporation pond shall not exceed a free board of two feet from the top of the lined pond; 3) Leakage rate for the biopass system and drain field ponds shall not exceed 200 gallons per acre per day.

Until the biopass system and evaporation pond have been designed,

approved and constructed the permit performance standards will include: 1) Maintenance of the current liner systems in the barren and pregnant ponds; 2) The pond level in either pond shall not exceed a free board of two feet from the top of the lined pond; 3) Leakage rates shall not exceed 200 gallons per acre per day.

C. Compliance Monitoring Requirements

1. Heap Leach and Biopass System Effluent Monitoring

a) Monitoring Frequency - The permittee shall attain independent grab samples from the heap leach and biopass system sampling ports on a semi-annual basis. Semi-annual monitoring will be conducted during the first and third quarters during odd numbered years and during the second and forth quarters during even numbered years. Monitoring will be reported to the Executive Secretary as per the requirements stipulated in Part I.E.1.

b) Analysis by Certified Laboratories - heap leach and biopass water samples shall be submitted to a laboratory certified by the State Health Laboratory for analysis.

c) Analytical Methods - methods used to analyze samples must be methods cited in UAC R317-6-6.3A(13)

d) Analysis Parameters - the following analyses will be conducted on all water samples collected:

1) Field Parameters - pH, temperature, and specific conductance

2) Laboratory Parameters - including:

-Major Anions and Cations: including chloride, sulfate, carbonate, bicarbonate, sodium, potassium, magnesium and calcium.
-Dissolved Metals: including arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver and zinc.
-Fluoride, nitrite and nitrate.
-Weak Acid Dissociable Cyanide.
-Cyanide Amenable to Chlorination.

2. Heap Leach and Bypass System Flow Monitoring

a) Monitoring Frequency - Data from the flow meters will be checked on a monthly basis for both instantaneous and cumulative flow.

The data will be reported on a quarterly basis in accordance with the schedule of Table 1, Part I.E.1.

3. Leakage Detection System Monitoring

a) Monitoring Frequency - The slotted 1.5 inch HDPE standpipes shall be visually inspected on a monthly basis for the presence of fluids. If fluids are present they shall be pumped to the evaporation pond. The volume of fluids shall be recorded and reported on a quarterly basis in accordance with the schedule of Table 1, Part I.E.1.

b) If the leakage rate exceeds 200 gallons per acre per day then the permittee shall report the leakage to the DWQ in accordance with Part I.D.1.

D. Non-Compliance Status

1. Out-of-Compliance Status Based Upon Failure To Maintain Discharge Minimization Technology

In the event the permittee fails to maintain the Heap Leach Pad Cover, the Biopass System or the Lined Drain field in compliance with any of the requirements of Part I.B.4 of this permit, the permittee shall be in violation of this permit unless the affirmative defense provisions of Part III.G are satisfied. The permittee shall submit to the Executive Secretary a notification and description of the failure in accordance with Part II I.1 and 2.

2. Implementation of Contingency Plan

In the event that the performance standards cannot be met utilizing the Discharge Minimization Technology described in Part I.C., above, the Executive Secretary may require the permittee to implement the Contingency Plan, Appendix A. Within 30 days of written receipt of notice from the Executive Secretary the permittee will submit for approval a schedule for implementation of the Contingency Plan. The permittee will then implement the Contingency Plan according to the schedule approved by the Executive Secretary.

E. Reporting Requirements

1. Discharge Minimization Monitoring Report:

a) Schedule - The sampling and analysis required in Part I.C, above,

shall be reported according to Table 1, below.

Table 1 - Compliance Monitoring Reporting Schedule

Quarter		Report Due On
1st	(Jan., Feb., March)	April 15
2nd	(April, May, June)	July 15
3rd	(July, Aug., Sept.)	October 15
4th	(Oct., Nov., Dec.)	January 15

b). Sampling and Analysis Report - will include:

1) Field Data Sheets - or copies thereof, including the field measurements, required in Part I C 1(c)(1), above, and other pertinent field data, such as: sample location, date and time, names of sampling crew, type of sampling pump or bail, measured casing volume, volume of water purged before sampling.

2) Results of Sample Analysis - including date sampled, date received, ion balance; and the results of analysis for each parameter, including: value or concentration, units of measurement, reporting limit (minimum detection limit for the examination), analytical method, and the date of the analysis.

3) Electronic Filing Requirements - In addition to submittal of the hard copy data, above, the permittee will be required to electronically submit the required ground water monitoring data in an electronic format approved by the Executive Secretary. The data may be sent by e-mail, floppy disc, modem or other approved transmittal mechanism.

F. Compliance Schedule

1. Construction Plans and Specifications - The permittee will submit for approval by the Executive Secretary complete construction plans and specifications for the construction of the biopass system including sampling ports, flow meters and the evaporation pond modifications. The permittee shall not begin construction of the biopass system or the evaporation pond until approval of the plans and specifications is received.

2. Construction Milestone Notifications - The permittee will provide written notice at least 10 days prior to the start of the biopass system construction.

The permittee will provide the Executive Secretary written notice of biopass system construction completion with 10 days following completion of the biopass system. An "As-Built" report will be provided within 30 days following biopass system construction completion.

3. Contingency Plan - The permittee will submit to the Executive Secretary for approval a Contingency Plan within 60 days of the issuance of this permit. The purpose of the plan will be to outline the steps required to bring the permittee back into compliance with permit conditions in the event that the performance standards of Part I.B.4 cannot be met. The permittee will resubmit the plan within 45 days of receipt of written notice from the Executive Secretary of deficiencies therein. Once approved the plan will become an enforceable Appendix A to this permit.

II. MONITORING, RECORDING AND REPORTING REQUIREMENTS

A. Representative Sampling. Samples taken in compliance with the monitoring requirements established under Part I shall be representative of the monitored activity.

B. Analytical Procedures. Water sample analysis must be conducted according to test procedures specified under UAC R317-6.3.A.13, unless other test procedures have been specified in this permit.

C. Penalties for Tampering. The Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

D. Reporting of Monitoring Results. Monitoring results obtained during each reporting period specified in the permit, shall be submitted to the Executive Secretary, Utah Division of Water Quality at the following address no later than the 15th day of the month following the completed reporting period:

State of Utah
Division of Water Quality
Department of Environmental Quality
Salt Lake City, Utah 84114-4810
Attention: Ground Water Protection Section

E. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Additional Monitoring by the Permittee. If the permittee monitors any pollutant more frequently than required by this permit, using approved test procedures as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted. Such increased frequency shall also be indicated.

G. Records Contents. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements:
2. The individual(s) who performed the sampling or measurements;
3. The date(s) and time(s) analyses were performed;
4. The individual(s) who performed the analyses;
5. The analytical techniques or methods used; and,

6. The results of such analyses.

H. Retention of Records. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the Executive Secretary at any time.

I. Twenty-four Hour Notice of Noncompliance Reporting.

1. The permittee shall verbally report any noncompliance with permit conditions or limits as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The report shall be made to the Utah Department of Environmental Quality 24 hour number, (801) 538-6333, or to the Division of Water Quality, Ground Water Protection Section at (801) 538-6146, during normal business hours (8:00 am - 5:00 pm Mountain Time).

2. A written submission of any noncompliance with permit conditions or limits shall be provided to the Executive Secretary within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:

a. A description of the noncompliance and its cause;

b. The period of noncompliance, including exact dates and times;

c. The estimated time noncompliance is expected to continue if it has not been corrected; and,

d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

e. If necessary a proposed schedule for implementation of the Contingency Plan in accordance with Part I.D.2.

3. Written reports shall be submitted to the addresses in Part II D, Reporting of Monitoring Results.

J. Other Noncompliance Reporting. Instances of noncompliance not required to be reported within 24 hours, shall be reported at the time that monitoring reports for Part II D are submitted.

K. Inspection and Entry. The permittee shall allow the Executive Secretary, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and,

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

III. COMPLIANCE RESPONSIBILITIES

A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give advance notice to the Executive Secretary of the Utah Water Quality Board of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

B. Penalties for Violations of Permit Conditions. The Act provides that any person who violates a permit condition implementing provisions of the Act is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions is subject to a fine not exceeding $25,000 per day of violation. Any person convicted under Section 19-5-115(2) of the Act a second time shall be punished by a fine not exceeding $50,000 per day. Nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.

C. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

F. Bypass of Treatment Facilities

1. Definitions:

   a. "Bypass" means the intentional diversion of heap leach solutions from any portion of the treatment system or untreated flow through the system during a partial system failure.
   b. "Severe property damage" means substantial physical damage to

property, damage to treatment facilities which may cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

2. Anticipated Bypass - If the permittee knows in advance of the need for a bypass, it shall submit prior notice, at least five (5) days before the date of the bypass. The notice shall include the reason(s) for the anticipated bypass, the expected length of time treatment systems will be bypassed, and a description of the measures taken to mitigate the quantities released during the bypass. Operational records shall be submitted following the anticipated bypass detailing the quantities of materials released and the levels of relevant chemical constituents in the materials released. The permittee shall limit the time period of the bypass to the minimum amount of time necessary to affect system maintenance or repairs.

   The Executive Secretary may approve an anticipated bypass, after considering any potential effects, if the Executive Secretary determines that it will meet the three conditions listed in paragraph 5 below of this section.

3. Unanticipated Bypass - The permittee shall submit notice of an unanticipated bypass as required in Part I.D.1. The permittee shall limit the time period of the bypass to the minimum amount of time necessary to affect system maintenance or repairs.

4. Prohibition of Bypass - Bypass is prohibited and the Executive Secretary may take enforcement action against a permittee for a bypass, unless:

   a) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

   b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and,

   c) The permittee submitted notices as required under Part III F.3, above.

G. Affirmative Defense

In the event that a compliance action is initiated against the permittee for violation of permit conditions relating to discharge minimization technology, the permittee may affirmatively defend against that action by demonstrating the following:

1. The permittee submitted notification according to Part I.D.1 and Part II.I.1 and 2;

2. The failure was not intentional or caused by the permittee's negligence, either in action or in failure to act;

3. The permittee has taken adequate measures to meet permit conditions in a timely manner or has submitted to the Executive Secretary, for the Executive Secretary's approval, an adequate plan and schedule for meeting permit conditions; and

4. The provisions of 19-5-107 have not been violated.

IV. GENERAL REQUIREMENTS

A. Planned Changes. The permittee shall give notice to the Executive Secretary as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required when the alteration or addition could significantly change the nature of the facility or increase the quantity of pollutants discharged.

B. Anticipated Noncompliance. The permittee shall give advance notice of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

C. Spill Reporting - The Permittee shall immediately report as per UCA 19-5-114 of the Utah Water Quality Act any spill or leakage from the tailings impoundment or associated facilities which is not totally contained by a collection system. This report shall be made to the phone numbers given in Part II I 1. A written report will be required within 5 days of the occurrence and should address the requirements of UCA 19-5-114 and Part II I 2 and 3 of this permit.

D. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

E. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a permit renewal or extension. The application should be submitted at least 180 days before the expiration date of this permit.

F. Duty to Provide Information. The permittee shall furnish to the Executive Secretary, within a reasonable time, any information which the Executive Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Executive Secretary, upon request, copies of records required to be kept by this permit.

G. Other Information. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Executive Secretary, it shall promptly submit such facts or information.

H. Signatory Requirements. All applications, reports or information submitted to the Executive Secretary shall be signed and certified.

1. All permit applications shall be signed as follows:

   a. For a corporation: by a responsible corporate officer;

   b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.

   c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

2. All reports required by the permit and other information requested by the Executive Secretary shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described above and submitted to the Executive Secretary, and,

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

3. Changes to Authorization. If an authorization under Part IV H 2. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part IV H 2. must be submitted to the Executive Secretary prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this section shall make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for

gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

I. Penalties for Falsification of Reports. The Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

J. Availability of Reports. Except for data determined to be confidential by the permittee, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Executive Secretary. As required by the Act, permit applications, permits, effluent data, and ground water quality data shall not be considered confidential.

K. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

L. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

M. Transfers. This permit may be automatically transferred to a new permittee if:

1. The current permittee notifies the Executive Secretary at least 30 days in advance of the proposed transfer date;

2. The notice includes a written agreement between the existing and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,

3. The Executive Secretary does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement as described in Part IV.M.2, above.

N. State Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, penalties established pursuant to any applicable state law or regulation under

authority preserved by Section 19-5-117 of the Act.

O. Reopener Provisions. This permit may be reopened and modified pursuant to R317-6-6.6.B or R317-6-6.10.C to include the appropriate limitations and compliance schedule, if necessary.

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ADDENDUM TO STATEMENT OF BASIS
June 20, 1997
North Lily: Silver City Heap Leach Closure Permit
Permit Renewal

Ground Water Quality Discharge Permit No. UGW230001

Basis For Closure

The Silver City Heap Leach facility consists of 15 acres of spent ore stacked to an average depth of 100 feet. Recovery of precious metals from the ore was terminated in October, 1995. North Lily has rinsed the ore by exposure to precipitation and by recycling drain down solutions to the heap leach. Significant reductions in initial contaminant concentrations of cyanide and other metals have been achieved. In spite of this rinsing effort several contaminants still exceed ground water quality standards. The long term drain down solution will be treated utilizing a passive aerobic bioreactor. The effluent from this system will be discharged to a lined evaporation pond.

The permittee has demonstrated that the expected quantity and quality of the discharge will not impact ground water due to the small volume of yearly discharge, the in place liner system, the depth to ground water at the site and the intervening stratigraphy between the surface and ground water.

Discharge Minimization Technology

Since North Lily was a existing facility at the time that the ground water regulations came into effect they are required to meet the Discharge Minimization Technology requirement of the ground water regulation as opposed to the more stringent Best Available Technology requirement. Discharge Minimization Technology for purposes of the permit is defined as: 1) An vegetative earthen cover that meets the requirements for land reclamation defined by the Division of Oil Gas and Mining; 2) An effective and maintained passive aerobic bioreactor constructed in the former pregnant solution pond and discharge to the former barren solution pond for evaporation. 3) Composite liner systems within the ponds will remain in place with care taken not to rip the liners during construction of biopass system and evaporation pond. 4) The leakage rate from the former barren and pregnant ponds will remain at 200 gallons per acre per day.

Discontinuance of Ground Water Monitoring

North Lily was a existing facility at the time that the ground water regulations came into effect. Rather than have North Lily install an expensive ground water monitoring system it was determined that monitoring of the Silver City supply well would provide a level of protection to the potentially impacted population. Monitoring of this well to date has shown no evidence of degradation due to the North Lily heap leach facility. Because no evidence exists that ground water was impacted during operations and due to the insignificant quantity of expected annual discharge ground water monitoring requirements will be discontinued under this permit. Discharge Minimization Technology performance monitoring will continue under the conditions of this permit.